

## WASHINGTON STATE FERRIES TERMINAL DESIGN STANDARDS: SITUATION ASSESSMENT

During the 2007 legislative session, the Legislature passed Engrossed Substitute House Bill 2358 (ESHB 2358) - “the Ferry Bill” - and the associated biennial transportation budget ESHB 1094. Each of the pieces of legislation contains specific policy and operational directives to assess the efficiency and costs related to how Washington State Department of Transportation (WSDOT) /Washington State Ferries (WSF) provides service. The results of the studies conducted to address the legislation are intended to derive strategies for how WSDOT/WSF operates in the future.

The legislation identifies specific topics for study and requires new levels of cooperation and collaboration among the Legislature (through the Joint Transportation Committee (JTC) and the new JTC Ferry Policy Subcommittee), the Washington State Transportation Commission (WSTC), and WSDOT/WSF. These directives follow from the December 2006 JTC Ferry Financing Study (also referred to as Ferry Financing Phase 1 or the Cedar River Group Report) and are the next steps in the process of developing a policy framework to address the long-term sustainability of WSDOT/WSF.

The legislation specifically spells out a list of tasks and a rough timeline that are designed to begin to address the questions raised in the Ferry Financing Study and to develop an information base that can support the ultimate question of how to address the long-term WSF funding requirements. Specifically ESHB 2358 and many of the Budget Provisos are designed to:

1. **Provide new, improved and “audited” information** – Ridership forecast reconciliation, life cycle cost model (LCCM), customer survey, cost allocation methodology, JTC Ferry Policy Working Group Studies, pre-design study requirements
2. **Develop strategies to minimize costs or increase revenues** – Terminal design standards, operational strategies, pricing policy changes, co-development study, evaluate 1-point toll collection, re-establish vehicle level-of-service (LOS)

This situation assessment provides a foundation for the identification, analysis and adoption of **terminal design standards** as required by ESHB 2358. In this component of the work plan, the department is required to develop terminal design standards that:

1. Adhere to vehicle level of service standards as described in RCW 47.06.140 (Transportation facilities and services of statewide significance -- Level of service standards);
2. Adhere to operational strategies as described in RCW 47.60.327 (section 7 of ESHB 2358 Operational Strategies); and
3. Choose the most efficient balance between capital and operating investments by using a life-cycle cost analysis.

There are closely related requirements for operational assessments. Among these are:

1. A cost-benefit analysis of remote holding versus over-water holding.
2. Methods of improving on-dock operations to maximize efficiency and minimize operating and capital costs.
3. Methods of reorganizing holding areas and minimizing on-dock employee parking to maximize the dock size available for customer vehicles.
4. Efficiencies in exit queuing and metering.

The new approach requires WSF to try to proactively manage the demand for capital facilities through adaptive operational and pricing strategies to maximize the use of existing assets and minimize the need for additional investments.

### **Approach to Terminal Design Standards**

The legislation titles this task as terminal design standards. Although design standards may result in future efforts, in order to best address the intent of the legislation, the department recommends that the approach to this task be refocused on a set of design strategies or guidelines and decision criteria for land side terminal facilities. Strategies more aptly meets the intent of the ESHB 2358 by allowing WSF to create a method, or series of implementation choices, for obtaining a specific goal associated with best using assets at each ferry terminal. On the other hand, standards are more associated with measurement of performance at the system level.

Decision criteria will be based on the implementation of adaptive management practices and comprehensive consideration of options and the associated transportation implications, costs, and benefits. The terminal design standards task necessarily responds to the outcomes of the operational, pricing, and level of service strategies and therefore is on a slower schedule for delivery. The balance of this memo is a brief synopsis of how the department is addressing the legislation.

### **Existing Work on Terminal Design Standards**

The main purpose of the terminal design standards task is to develop strategies for the sizing of the vehicle holding and walk-on passenger terminal buildings that are responsive to the implementation of Operational, Pricing and Level of Service strategies currently under study. An interdisciplinary technical team is assembled to undertake the task. The first step in the process is documentation of the existing strategy for sizing the land side facilities at WSF terminals. This activity is occurring at two levels:

1. Review of existing facility sizing methods: Previous efforts to size vehicle holding areas were based on the existing level of service paradigm, the current demand curves that were grown according to the Draft Long Range Plan, and a factor applied to reflect “customer experience” regarding wait times. The existing model is a tool to estimate the amount of delay that can be expected by travelers in vehicles at each terminal. The model is a first in, first out type of service priority and allows WSF to apply a customer service factor for vehicles outside and inside of the vehicle holding area. The general assumption is that the customer experience is better when in the holding area, engine turned off, and people are afforded the opportunity to take advantage of local amenities.

A similar approach was taken to size the passenger terminal except that the type of passenger at each terminal further factored customer experience.

2. Review of the documentation for the overall programmatic requirements of the ferry terminal facilities. The overall program includes all requirements for operation of the terminal, inclusive of staff, equipment, and storage requirements. Third party analysis will be conducted to review how the overall facility needs are identified by terminal. A goal is for a baseline facility program that is modifiable by specific terminal location.

### **Key Evaluative Criteria for Potential Terminal Design Strategies**

In determining recommendations, terminal design strategies should be evaluated by their impact on five dimensions implicit in ESHB 2358: 1) demand 2) customer service 3) revenue generation 4) life cycle costs that result in the most efficient balance of operating and capital costs and 5) impact on users, capacity and communities. While these criteria are mentioned in the legislation no explicit prioritization is stated. In addition, terminal design must respect tribal government rights, Coast Guard requirements, state and national level environmental policy, and local agency comprehensive plans and shoreline programs. In later stages of analysis, prioritization and the balancing of these considerations should be clear or further guidance may be warranted.

### **Relationship to Other Work Elements**

Terminal design strategies will be developed to reflect the flexibility required by operational and pricing strategies as developed in other tasks associated with the legislation.

The identification, analysis and recommendation of strategies will be closely aligned with several other concurrent tasks including: the WSTC customer survey; the development of operational strategies including those directly affecting terminal holding areas; the re-establishment of vehicle LOS standards; and the updated and reconciled ridership forecasts.

### **Schedule and Next Steps**

This situation assessment memo is a first step in the identification, formulation, and analysis of terminal design standards recommendations. The following time line and actions are tentative and are subject to revision. JTC review of recommendations will occur throughout the process.

- **October 2007-February 2008:** Identify base terminal preservation requirements (Life Cycle Cost Model). Review and report of existing WSF/WSDOT practices.
- **February-April 2008:** Develop terminal design strategies in support of operational, pricing, and vehicle level of service strategies. Development of decision criteria for implementing terminal design strategies.
- **April - June 2008:** Determine the implications of the terminal design strategies chosen to support the operational, pricing, and vehicle level of service strategies in preparation for the Long Range Plan.
- **October - December 2008:** Finalize terminal design strategies.

- **December 2008:** Adoption of the Long Range Plan.